

DECLARATION

We declare that this project work entitled “**Design and Implementation of an Android Phone Controlled Fire Fighting Robot**” is the result of our own work as cited in the references. This project has not been accepted for any degree and is not concurrently submitted in candidature for any other degree or diploma elsewhere.

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I hereby declare that I have read project report. In my opinion, this project is sufficient in terms of scope and quality to meet the partial requirements for the award of the B.Sc. Engineering degree in Mechanical Engineering.

Supervised by,

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APPROVAL

The Senior Project entitled “**Design & Implementation of an Android Phone Controlled Fire Fighting Robot**” carried out by S M LION HOSSAAIN, ID:BME1903019463; Md. Jahurul Islam, ID:BME1903019476; Md Razu Shaikh, ID:BME1903019475; AMAR CHAKMA, ID:BME1903019458; MD. RATUL HASAN, ID:BME1903019471 for the partial fulfillment of the requirement for the award of Bachelor of Science in Mechanical Engineering was presented to the audience of the Oral Exam Committee on and has been accepted as satisfactory.

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ACKNOWLEDGEMENT

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We would like to thank all faculty members and our classmates of the Department of Mechanical Engineering for their encouragement to perform the work. We like to thank them, also who helped us to complete this project successfully.

ABSTRACT

Nowadays, fire accidents are very common and sometimes it becomes very hard for a fireman to protect someone's life. It is not possible to appoint a person to continuously observe whether accidental fire has started where a robot can do that. A robot will detect fire remotely. These robots are mostly useful in industries. The proposed vehicle is able to detect the presence of fire and extinguish it automatically by using a temperature sensor. The proposed robot has a water spray which is capable of sprinkling water in a 180-degree angle. The sprinkler can move towards the required direction. At the time of moving towards the source of fire, it may happen that it will come across some obstacles, then it has obstacle-avoiding capability. It detects obstacles using ultrasonic sensors. Communication between the mobile phone and robot will take place through Bluetooth, which will have a GUI to control the movement of the robot. When the mobile gets connected to Bluetooth, it will first set the module name and baud rate. It is feasible to implement Bluetooth communication between smartphones and microcontrollers. An Android-controlled robot can be used easily in everyday life such as in homes, markets, companies, etc. The development of apps for Android in the Android SDK is easy and free of cost.